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Subject: Re: changing contrast and brightness on the fly

Posted by [slashell](#) on Thu, 21 Jun 2001 16:55:29 GMT

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Perhaps no one has said this because it's obvious, but just in case:

Level and width (as described by whatshisname above) is a more natural way to write your code. If people want brightness and contrast, the connections are as follows:

Higher contrast means a more narrow window

Brighter image means a lower level

I don't know what the convention is for units of contrast and brightness, but for example:

```
a = congrid(indgen(2^6,2^6),300,300) ; dummy image with range of 2^12
```

```
aMin = min(a,max=aMax) ; get max and min values of raw image
```

```
; scale all 12 bits of data into 8 bits of display
```

```
; one might call this contrast = 0 (out of 100) and brightness = 50 (out of 100)
```

```
tv,bytsc1(a)
```

```
; now, to display some other contrast and brightness
```

```
contrast = 50
```

```
brightness = 25
```

```
Level = (1-brightness/100.)*(aMax - aMin) + aMin
```

```
width = (1-contrast/100.)*(aMax - aMin)
```

```
displayMax = level + width/2
```

```
displayMin = level - width/2
```

```
tv,bytsc1(a,min=displayMin,max=displayMax)
```

Hope this helps,

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